

present chief Physician of *Strasburgh*, all which occur'd in his own Practice; as the foregoing are recorded in the Register of that University. These likewise are very remarkable: But as they are not altogether so uncommon, a particular Account need not be given of them.

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VIII. *An Account of the Culture and Management of Saffron in England*, by James Douglass, M. D. Med. Regin. Extr. & S. R. S.

AS Saffron grows at present most plentifully in *Cambridge-shire*, and has grown formerly in several other Counties of *England*, the Method of Culture does not, I believe, vary much in any of them, and therefore I have judg'd it sufficient to set down here the Observations which I employed proper Persons, in different Seasons, to make in the Years 1723, 24, 25, and 28, up and down all that large Tract of Ground that lies between *Saffron-Walden* and *Cambridge*, in a Circle of about ten Miles Diameter. In that Country Saffron has been longest cultivated, and therefore it may reasonably be expected that the Inhabitants thereof are more thoroughly acquainted with it than they are any where else.

I shall begin with the Choice and Preparation of the Ground. The greatest Part of the Tract already mention'd is an open level Country with few Inclosures; and the Custom there is, as in most other Places, to crop two Years, and let the Land lie fallow the third. Saffron

from is always planted upon fallow Ground, and all other Things being alike, they prefer that which has born Barley the Year before.

The Saffron-grounds are seldom above three Acres, or less than one, and in choosing them, the principal Thing they have Regard to is, that they be well exposed, the Soil not poor, nor a very stiff Clay, but a temperate dry Mold, such as commonly lies upon Chalk, and is of a hazel Colour; though if every Thing else answers, the Colour of the Mold is pretty much neglected.

The Ground being made choice of, about Lady-day, or the Beginning of *April*, it must be carefully ploughed, the Furrows being drawn much closer together and deeper, if the Soil will allow it, than is done for any Kind of Corn, and accordingly the Charge is greater.

About five Weeks after, or during any Time in the Month of *May*, they lay between twenty and thirty Loads of Dung upon each Acre, and having spread it with great Care, they plough it in as before. The shortest rotten Dung is the best; and the Farmers who have the Conveniencies of making it, spare no Pains to make it good, being sure of a proportionable Price for it. About Midsummer, they plough a third Time, and between every sixteen Foot and an half, or Pole in Breadth, they leave a broad Furrow or Trench, which serves both for a Boundary to the several Parcels, (when there are several Proprietors to one Enclosure) and to throw the Weeds in at the proper Season.

To this Head likewise belongs the Fencing of the Grounds, because most commonly, though not always, that is done before they plant. The Fences consist of what they call dead Hedges, or Hurdles to keep out not  
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only Cattle of all Sorts, but especially Hares, which would otherwise feed on the Saffron Leaves during the Winter.

About the Weather we need only observe, that the hottest Summers are certainly the best, and if there-with there be gentle Showers from time to time, they can hardly miss of a plentiful rich Crop, if the extream Cold, Snow, or Rain of the foregoing Winter have not prejudiced the Heads.

The next general Part of the Culture of Saffron, is planting or setting the Roots; the only Instrument used for which, is a narrow Spade, commonly termed a *Spit-shovel*.

The Time of Planting is commonly in the Month of *July*, a little sooner or later, according as the Weather answers. The Method is this. One Man with his Spit-shovel raises between three and four Inches of Earth, and throws it before him about six, or more Inches; two Persons, generally Women, following him with Heads, place them in the farthest Edge of the Trench he makes at three Inches distance from one another, or thereabouts. As soon as the Digger or Spitter has gone once the Breadth of the Ridge, he begins again at the other Side, and digging as before, covers the Roots last set, and makes the same Room for the Setters to place a new Row, at the same Distance from the first, that they are from one another. Thus they go on till a whole Ridge, containing commonly one Rod, is planted, and the only Nicety in digging is to leave some Part of the first *Stratum* of Earth untouched to lie under the Roots; and in setting, to place the Roots directly upon their Bottoms. What Sort of Roots are to be preferred, shall be shown under the fourth Head; but

but it must be observed in this Place, that formerly when Roots were very dear, they did not plant them so thick as they do now; and that they have always more regard to the Size of the Roots, placing the largest at a greater Distance than the small ones.

The Quantity of Roots planted in an Acre is generally about sixteen Quarters, or 128 Bushels, which according to the Distances left between them, as before assigned, and supposing them all to be an Inch in Diameter one with another, ought to amount to 392040 in Number.

From the Time that the Roots are planted, till about the Beginning of *September*, or sometimes later, there is no more Labour about them; but as they then begin to spire, and are ready to shew themselves above Ground, which is known by digging a few out of the Earth, the Ground must be carefully pared with a sharp Hough, and the Weeds, &c. raked into the Furrows, because otherwise they would hinder the Growth of the Plants.

In some Time after appear the Saffron Flowers, and this leads us to the third Branch of our present Method. The Flowers are gathered as well before, as after they are full blown, and the most proper Time for this, is early in the Morning. The Owners of the Saffron get together a sufficient Number of Hands, who place themselves in different Parts of the Field, pull off the whole Flowers, and throw them Handful by Handful into a Basket; and so continue till all the Flowers are gathered, which happens commonly about ten or eleven o'Clock.

Having then carried home all they have got, they immediately spread them upon a large Table, and placing themselves round it, they fall to picking out the Filamenta Styli, or Chives, and together with them, a

pretty long Portion of the Stylus itself, or *String* to which they are joined. The rest of the Flowers they throw away as useless. The next Morning they return into the Field again, whether it be wet or dry Weather, and so on daily, even on Sundays, till the whole Crop be gathered.

The Chives being all picked out of the Flowers, the next Labour about them is to dry them on the Kiln. The Kiln is built upon a thick Plank (that it may be moveable from Place to Place) supported by four short Legs. The Outside consists of eight Pieces of Wood, about three Inches thick, joined in Form of a quadrangular Frame, about twelve Inches square at Bottom on the Inside, and twenty-two Inches at Top, which is likewise equal to the perpendicular Height of it. On the Foreside is left a Hole about eight Inches square, and four Inches above the Plank, through which the Fire is put in. Over all the rest, Laths are laid pretty close to one another, and nailed to the Frame already mentioned, and then are plastered over on both Sides, as is also the Plank at Bottom very thick, to serve for a Hearth. Over the Mouth, or widest Part, goes a Hair-Cloth fixed to two Sides of the Kiln, and likewise to two Rollers, or moveable Pieces of Wood, which are turned by Wedges or Screws, in order to stretch the Cloth. Instead of the Hair-Cloth many People now use a Net-work of Iron-wire, with which it is observed, that the Saffron dries sooner, and with a less Quantity of Fuel; but the Difficulty of preserving the Saffron from burning, makes the Hair-Cloth be preferred by the nicest Judges in drying.

The Kiln is placed in a light part of the House, and they begin by laying five or six Sheets of white Paper on the Hair-cloth, upon which they spread the wet Saffron, between two and three Inches thick.

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This they cover with other Sheets of Paper, and over these lay a coarse Blanket five or six times doubled, or instead thereof, a Canvas Pillow fill'd with Straw, and after the Fire has been lighted for some time, the whole is cover'd with a Board, having a large Weight upon it.

At first they give it a pretty strong Heat, to make the Chives sweat, as their Expression is ; and in this, if they do not use a great deal of Care, they are in danger of scorching, and so of spoiling all that is on the Kiln.

When it has been thus dry'd for about an Hour, they take off the Board, Blanket, and upper Papers, and take the Saffron off from that that lies next it, raising at the same time the Edges of the Cake with a Knife. Then laying on the Papers again, they slide in another Board between the Hair-Cloth and under-Papers, and turn both Papers and Saffron upside down, afterwards covering them as above.

This same Heat is continued for an Hour longer ; then they look to the Cake again, free it from the Papers and turn it ; then they cover it, and lay on the Weight as before. If nothing happens amiss, during these first two Hours, they reckon the Danger to be over ; for they have nothing more to do, but to keep a gentle Fire, and turn their Cake every half Hour, 'till it be thoroughly dry ; for doing which as it ought, there are required full twenty-four Hours.

In drying the large plump Chives they use nothing ; but towards the latter End of the Crop, when these come to be smaller, they sprinkle the Cake with a little small Beer, to make it sweat as it ought ; and they begin now to think, that using two linnen Cloths next the Cake, instead of the two innermost Papers, may be of some Advantage in drying ; but this Practice is followed as yet but by few.

Their Fire may be made of any kind of Fuel ;  
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but that which smoaks the least is best, and Charcoal for that Reason is preferred to any other.

What Quantity of Saffron a first Crop will produce is very uncertain. Sometimes five or six Pounds of wet Chives are got from one Rood ; sometimes not above one or two, and sometimes not enough to make it worth while to gather and dry it. But this is always to be observed, that about five Pounds of wet Saffron go to make one Pound of dry, for the first three Weeks of the Crop, and six Pounds during the last Week ; and now the Heads are planted very thick, two Pounds of dry'd Saffron may, at a Medium, be allow'd to an Acre for a first Crop, and four and twenty Pounds for the two remaining, the third being considerably larger than the second.

In order to obtain these, there is only a Repetition to be made every Year of the Labour of houghing, gathering, picking and drying in the same manner as before set down, without the Addition of any thing new ; except that they let Cattle into the Fields, after the Leaves are decay'd, to feed upon the Weeds ; or perhaps mow them for the same Use.

About the *Midsummer* after the third Crop is gathered, the Roots must all be taken up and transplanted : The Management requisite for which is the fourth Thing to be treated of. To take up the Saffron Heads, or break up the Ground, as their Term is, they sometimes plough it, sometimes use a forked Kind of Hough called a Paddock, and then the Ground is harrowed once or twice over ; during all which Time of ploughing, or digging and harrowing, fifteen or more People will find Work enough to follow and gather the Heads as they are turned up.

They are next to be carried to the House in Sacks, and there to be clean'd or rased. This Labour consists in clearing the Roots thoroughly from Earth, and  
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from the Remains of old Roots, old Involucra, and Excrescencies; and thus they become fit to be planted in new Ground immediately, or to be kept for some Time without Danger of spoiling.

The Quantity of Roots taken up, in Proportion to those that were planted, is uncertain; but at a Medium it may be said, that allowing for all the Accidents that happen to them in the Ground, and in breaking up, from each Acre may be had twenty-four Quarters of clean Roots, all fit to be re-planted. The Owners are sure to choose for their own Use the largest, plumpest, and fattest Roots, but above all, they reject the longish pointed ones, which they call *Spickets* or *Spickards*; for very small round or flat Roots are sometimes observed to flower.

This is the whole Culture of Saffron in the Country above-mentioned; and we have only now to consider the Charges and Profits which may be supposed, one Year with another, to attend this Branch of Agriculture; and of these I have drawn up the following Computation for one Acre of Ground, according to the Price of Labour in this County.

	<i>l.</i>	<i>s.</i>	<i>d.</i>
Rent for three Years	3	0	0
Ploughing three Times	0	18	0
Dunging	3	12	0
Hedging	1	16	0
Spitting and setting the Heads	1	12	0
Weeding, or paring the Ground	1	4	0
Gathering and picking the Flowers	6	10	0
Drying the Flowers	1	6	0
Instruments of Labour for three Years	0	10	0
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Ploughing the Ground once and harrowing twice	0	12	0
Gathering the Saffron Heads	1	0	0
Raising the Heads	1	12	0
Total Charge	23	12	0



This Calculation is made upon the Supposition, that an Acre of Ground yields twenty six Pounds of neat Saffron in three Years, which I stated only as a mean Quantity between the greatest and the least ; and therefore the Price of Saffron must be adjusted accordingly, which I think cannot be done better than by fixing it at thirty Shillings per Pound ; since in very plentiful Years it is sold for twenty, and is sometimes worth between three and four Pounds. At this Rate, twenty-six Pounds of Saffron are worth thirty-nine Pounds, and the neat Profits of an Acre of Ground producing Saffron, will in three Years amount to fifteen Pounds thirteen Shillings, or to about five Pounds four Shillings yearly. This, I say, may be reckoned the neat Profit of an Acre of Saffron, supposing that all the Labour were to be hired for ready Money ; but as the Planter and his Family do a considerable Part of the Work themselves, some of this Expence is saved : That is, by planting Saffron, he not only may reasonably expect to clear about five Pounds yearly *per* Acre, but also to maintain himself and Family for some Part of each Year ; and it is upon this Supposition only, that the Result of other Computations which have been made of the Profits of Saffron, can be said to have any tolerable Degree of Exactness ; but the Calculations themselves are undoubtedly very unaccurate.

I have said nothing here concerning the Charge in buying, or Profits in selling the Saffron Heads, because in any large Tract of Ground these must at length always ballance one another, while the Quantity of Ground planted yearly continues the same, which has been pretty much the Case for several Years past.